NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AI ONE POINT BACK PRESSURE TES OR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED

MAY 8 1981

O. C. D.
ARTESIA, OFFICE

C/F

Type Test: [X] Initial [ ] Annual [ ] Special			Test Date: 4-20-81		
Company: Mesa Petroleum Co.		Connection: Unconnected			
Pool: Wildcat		Formation: ~~Bursum~~ Wolfcamp		Unit:	
Completion Date: 4-20-81	Total Depth: 8660'	Plug Back TD: 6245'	Elevation: 3847'	Farm or Lease Name: Siegrest State	
Csg. Size: 4 1/2	Wt.: 10.5 & 11.6	d:	Set At: 8657	Perforations: From 6218 To 6224	Well No.: 1
Tbg. Size: 2 3/8	Wt.: 4.7	d:	Set At: 6109	Perforations: From None To	Unit: H Sec.: 25 Twp.: 19S Rge.: 23E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single			Packer Set At: 6109		County: Eddy
Producing Thru: Tubing	Reservoir Temp. °F: 120 @ 6200	Mean Annual Temp. °F: 60	Baro. Press. – P_a: 13.2		State: New Mexico

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
6109	6109	.71	3	1		2" Orifice Well Tester		

	FLOW DATA				TUBING DATA		CASING DATA		
NO.	Prover Line Size	X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow
SI	2" Orifice					1780				72 hrs +
1.	Well	3/4	12		60	1730	90			3/4 hr
2.	Tester	1 1/4	10		60	1590	90			1/2 hr
3.		1 1/4	13		60	1310	90			1/2 hr
4.		1 1/4	15		60	1150	90			3/4 hr
5.										

RATE OF FLOW CALCULATIONS

NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P_m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	272	2" Orifice Well	Tester	1.0000	.9193		250
2.	753			1.0000	.9193		692
3.	882			1.0000	.9193		810
4.	964			1.0000	.9193		886
5.							

NO.	P_t	Temp. °R	T_f	Z
1.				
2.				
3.				
4.				
5.				

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.

A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.

Specific Gravity Separator Gas _____ XXXXXXXXX

Specific Gravity Flowing Fluid XXXXX _____

Critical Pressure _____ P.S.I.A. _____ P.S.I.A.

Critical Temperature _____ R _____ R

P_c 1780 P_c^2 3168

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1	2993	1731	2996	172
2	2528	1597	2550	618
3	1716	1322	1748	1420
4	1323	1166	1360	1808
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.7522$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.3690$

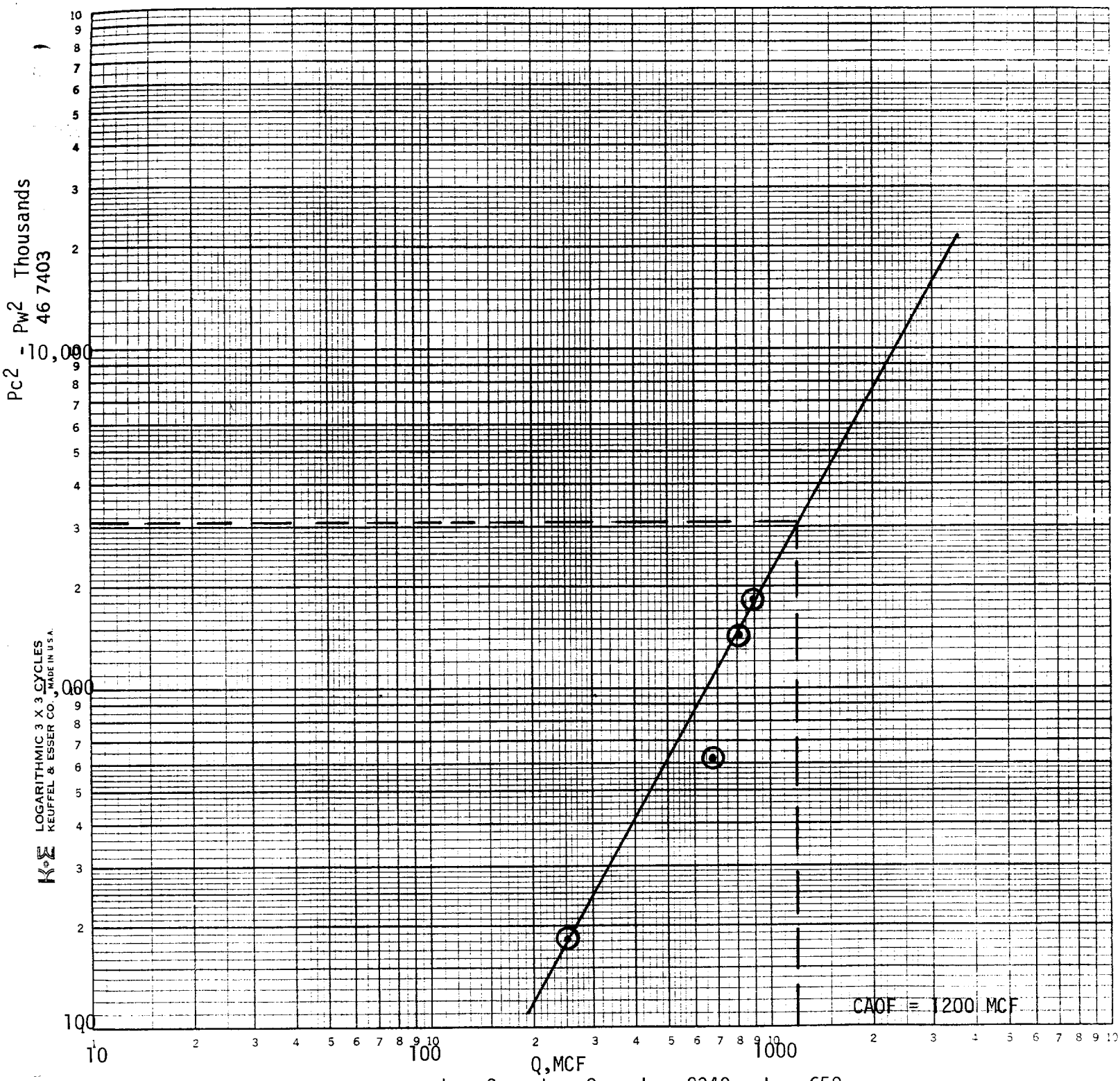
AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1,200$

Absolute Open Flow 1,200 Mcfd @ 15.025 Angle of Slope θ 60.8 Slope, n .56

Remarks: _____

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	James Craig	E. L. Buttross, Jr.	

Mes Petroleum Co.
Siegrest State #1
Sec 25, T19S, R23E
Eddy County, New Mexico
4-20-81



$$n = 1/\text{slope} = \frac{\text{Log } Q_2 - \text{Log } Q_1}{\text{Cycle}} = \frac{\text{Log } 2340 - \text{Log } 650}{\text{Cycle}} = 3.37 - 2.81 = .56$$

$\theta = 60.8°$